Transportation System Analysis

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Transportation System Analysis

This section of the *Eau Claire Comprehensive Plan* focuses on the City's transportation system. It identifies transportation-related issues to be addressed through the comprehensive planning process and it establishes a baseline of existing conditions from which future transportation needs can be identified. Transportation issues are intertwined with land use decisions and other public policies regarding growth and development. As a result, transportation should be considered during all aspects of the planning process. The following section identifies some of the more significant transportation issues currently facing the City of Eau Claire.

Transportation Issues

The following issues were identified early in the study process through discussions with City staff and a thorough review of existing planning documents. These issues will be discussed, debated and evaluated during the planning process. The major transportation issues identified include:

Transportation Priorities: What are the highest priorities that the City has in regard to its transportation system? What resources should be allocated to address these needs?

Strategic Improvements for Growth Management: What road improvements should be made to guide growth and support annexation proposals?

Transit Alternatives: Should the City invest additional resources to encourage more transit use? Should additional resources be allocated to transit services, above the current amount provided each year?

Land Use Patterns: What should be the future development patterns (e.g. density and land use mix) relative to the existing and future transportation system?

Neighborhood Design: Should streets be retrofitted to accommodate the widths established in the Subdivision Ordinance or should streets be made narrower to slow traffic and provide a more compact urban environment? Should sidewalks be required along all new streets in the City? What degree of traffic calming measures, if any, should be incorporated on local City streets?

New US 53 Freeway: How is the City going to accommodate the major changes brought about by the new US 53 freeway alignment? Are future connections to the developing areas near the new US 53 freeway needed? What process should be used to guide future land use decisions, access spacing, and urban expansion in this area?

Circulation and Connectivity: Is there a need for future road extensions and river crossings? Does the City need a new interchange along I-94 at Cameron Street? Is there

a need for extending Hendrickson Drive to Fifth Street across the Chippewa River? Should downtown access be improved through the upgrade of Birch Street or State Street? Should the City consider seeking an extension of Third Street in Altoona to the south to link with the existing CTH AA which then connects with the existing interchange at US 53 and the retail development that exists at this location?

Access Management: What level of access management should be used to provide an adequate level of safety and mobility? What level of control does the City want to undertake?

Sidewalk Requirements: Should the City continue to require sidewalks on both sides of new streets or should amendments to this requirement be made?

Trail Connectivity: To what extent should additional investments be made to construct a connected trail system? Where should future trails be located? Should trails focus more on a recreational or commuting function?

Truck Traffic: Should truck routes be established throughout the City? Should modifications be made to the number of streets that current restrict trucks?

Adequacy of Freight Connections: Are the current freight transportation connections (local roads, highways, rail and airport) adequate for the shipment of goods in and out of the Eau Claire area, or are further investments needed to maintain competitiveness and efficiencies?

Summary of Findings

Some significant findings were revealed based on the analysis of the existing conditions of the Eau Claire transportation system. These findings are listed below.

Land Use

Generally, the City of Eau Claire has relatively low-density housing and has many other land uses and developments that are auto-dependant. This is quite common among cities similar to Eau Claire in population and geography. As the City continues to grow and expand, maintaining the proper connections and an adequate road system will be important.

Travel Behavior

The automobile is easily the most common mode of transportation for people going to work. However, it is worth noting that compared to the U.S. average, Eau Claire has a high percentage of people who walk to work, but the percentage of people who carpool or use transit is lower than the U.S. average. These results may be due to the presence of the University of Wisconsin Eau Claire (UWEC) and its large number of students and faculty. Median commute time for workers in Eau Claire in 2000 was approximately 15.1 minutes, which is significantly less than the national average.

Downtown Access and Circulation

Downtown Eau Claire has a typical roadway grid-system that supports downtown urban land uses. This grid system is shaped around the Chippewa River which winds through the downtown area. Selected one-way streets (Barstow Street, Graham Street) help to move traffic through the downtown area.

One of the primary complaints voiced is the lack of a good connection between the downtown area and the regional highway system (I-94, US 53, US 12 or STH 124). Birch Street was recently improved for better access to and from the northeast, but this road still travels through a developed neighborhood. Efforts to improve downtown access should continue to be pursued.

Roadway Jurisdiction

A jurisdictional study was recently completed in relation to the new US 53/STH 29 construction project. While this study resolved many questions, it did not resolve the issue of which entity, WisDOT or the City of Eau Claire, will be responsible for and maintain the existing US 53 (Hastings Way) once the new US 53 freeway is built.

Traffic Volumes and Circulation

Traffic volumes on many of the roads in the Eau Claire area have grown significantly over the past decade, with some of the most notable growth occurring along I-94 and Cameron Street. Regarding traffic circulation, there exists a need for selected roadway extensions, especially for connectivity across I-94 and the Chippewa River north of

downtown. Roads such as State Street and Birch Street may need to be upgraded to improve continuity to downtown and to bridge the Chippewa River. In addition, a future interchange at I-94 and Cameron Street also may be needed to provide greater accessibility to the local street network.

Road Capacity

Overall, the majority of roads in Eau Claire can accommodate the current traffic volumes and as a whole and congestion is not a major issue. Most roads are under capacity and create few major delays. However certain areas do exhibit time of day or seasonal congestion, or are affected by intersection limitations. Congested segments include portions of US 53 (Hastings Way), Farwell Street, Harding Avenue, and selected other segments throughout the City.

Crash Summary

Crashes in Eau Claire are primarily concentrated on four roads. The vast majority of high crash locations are found along US 53, Clairemont Avenue, the North Crossing (STH 124) and Farwell Street. Additional analysis should be conducted to identify potential causes and potential improvements that would reduce the number of crashes along these roads.

Truck Traffic

The City currently does not have any truck routes identified. Selected city streets have restricted truck usage as a result of a study undertaken many years ago by the City Council to address citizen concerns regarding truck traffic.

Transit

The Eau Claire Transit (ECT) service covers a vast majority of Eau Claire and selected portions of Altoona, while the paratransit service extends to residents outside of the City of Eau Claire. Maintaining proper funding into the future will remain to be one of the largest challenges facing the ECT.

Bicycles and Pedestrians

The Chippewa River State Trail runs through Eau Claire. This is an excellent facility for bicyclists, pedestrians, in-line skaters and roller skiers to use for recreational or utilitarian trips. Aside from this trail, there are few off-road trails in Eau Claire. Future decisions regarding trails for bicycles and pedestrians should be addressed.

Project Funding

Based on the current Capital Improvement Program (CIP), the City of Eau Claire has annual street improvement funding of approximately $4.9 to $5.3 million for the next four years. Future improvement projects will need to be prioritized based on the City's need.

Growth and Travel Characteristics

Historical Setting

The City of Eau Claire is located at the confluence of the Eau Claire and Chippewa Rivers. When the city was settled in the 1840's, these rivers served as a means of transportation for many of the first settlers' goods, and solidified transportation's role as a vital component of the city's livelihood.

The city's early street network consisted of a system of radial routes extending out from the downtown area, and a grid system into the surrounding neighborhoods. Neighborhoods contained a mix of housing and retail stores for general commercial goods, allowing people to travel short distances. Evidence of this early street network can be found in some of the more traditional neighborhoods in the city, as well as the downtown area.

As the city developed more completely, land uses spread, and with the advent of the automobile a highway system was slowly developed permitting people to make longer trips. Eau Claire has evolved into a major trade center in west central Wisconsin and is linked to the cities of Madison, Green Bay and St. Paul by various state and nationally significant highways.

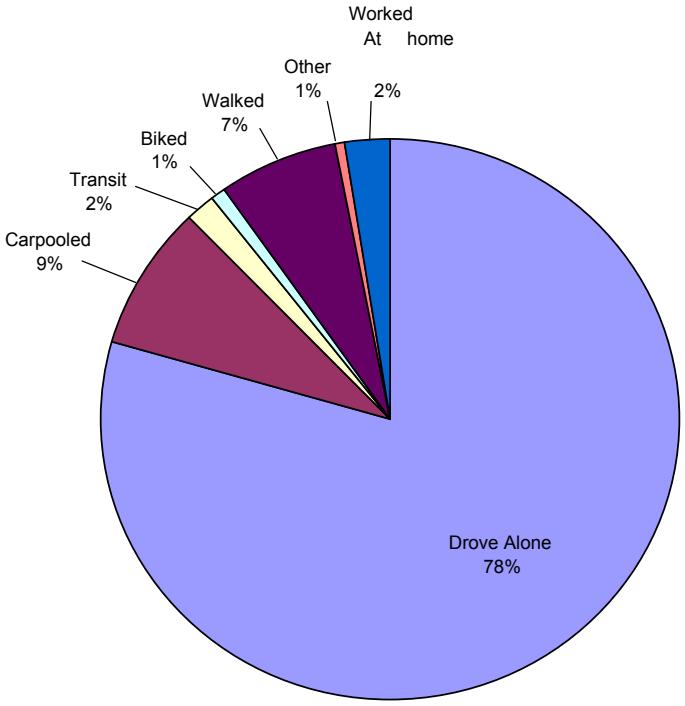
Land Use Trends

According to the U.S. Census Bureau, the 2000 population for the City of Eau Claire was 61,704, a nine percent increase over 1990. The number of housing units in the City of Eau Claire increased to 24,895 in 2000 from 21,922 in 1990, a 14 percent increase. This growth in population and households has generated the need for an expansion of the urban area as well as the need for more roads and other transportation investments to support these growth areas. A large portion of this urban growth area has or will extend into the surrounding rural areas, some of which is currently under the jurisdiction of neighboring communities.

Mode Choice

According to the 2000 U.S. Census, about 78 percent of Eau Claire's commuters drove alone to work, which is on par with the national average of 76 percent. Figure 5-1 presents mode choice for the City of Eau Claire. The percentage of carpooling and transit use was lower than the national average, but the percentage of commuters walking or bicycling was higher than the national average.

Figure 5-1
Commute to Work – Mode Choice



Median Commute Times

In 2000, the median commute time for workers in the City of Eau Claire using all modes of transportation was 15.1 minutes. Data for Eau Claire County suggests that workers had longer commute times if they carpooled or used public transportation, but shorter commute times if they bicycled or walked.[1]

[1] Data for commute times has only been released on a county level.

Existing Transportation System

National Highway System

The federal 1991 Intermodal Surface Transportation Efficiency Act (ISTEA) redefined federal aid roadways through the adoption of the National Highway System (NHS). The NHS includes all interstate routes, selected Principal Arterials and the Defense Strategic Highway Network. Routes the NHS system are eligible to compete for federal funding monies that are not available to non-NHS routes. NHS roadways within the Eau Claire urbanized area are shown in Figure 5-2 and are listed below:

- Interstate 94
- USH 53
- USH 12
- STH 29
- STH 93
- STH 37-85
- STH 124.

Functional Classification

Functional classification is used to categorize roadways based on the service they provide within the transportation network and their relationship to surrounding land uses. The functional classification determines the role that each individual street should play in moving traffic in the area or region. Each roadway's role is balanced between providing land access and providing mobility. Four general categories are used for defining functional classification: principal arterial, minor arterial, collector and local. The purpose and characteristics of these classes is summarized below:

- Principal Arterial — Serves long trips within and/or through the urban area, connects an urban area to other major trade centers, provides limited access; exhibits high emphasis on mobility; typically has high traffic volume.
- Minor Arterial — Serves medium to short trips within an urban area; connects major activity centers, restricts access and limits curb cuts, has moderate to high traffic volumes.
- Collector — Provides access to residential neighborhoods and commercial or industrial centers; has low to moderate traffic volumes, is used for inter-neighborhood trips.
- Local — Serves short trips with direct land access within neighborhoods and other nearby land uses; has low traffic volumes, these are the roadways that serve the majority of travel within the local neighborhood and/or area.

Eau Claire roadway mileage, by functional classification, is shown below in Table 5-1. In order to receive Federal and State funding, the Wisconsin Department of Transportation (WisDOT) determines the maximum percentages of each classification for an entire urban area's roadway system. Functional classification in mileage for the Eau Claire's roadway network has been approved by the State.

Table 5-1
City of Eau Claire Functional Classification Mileage

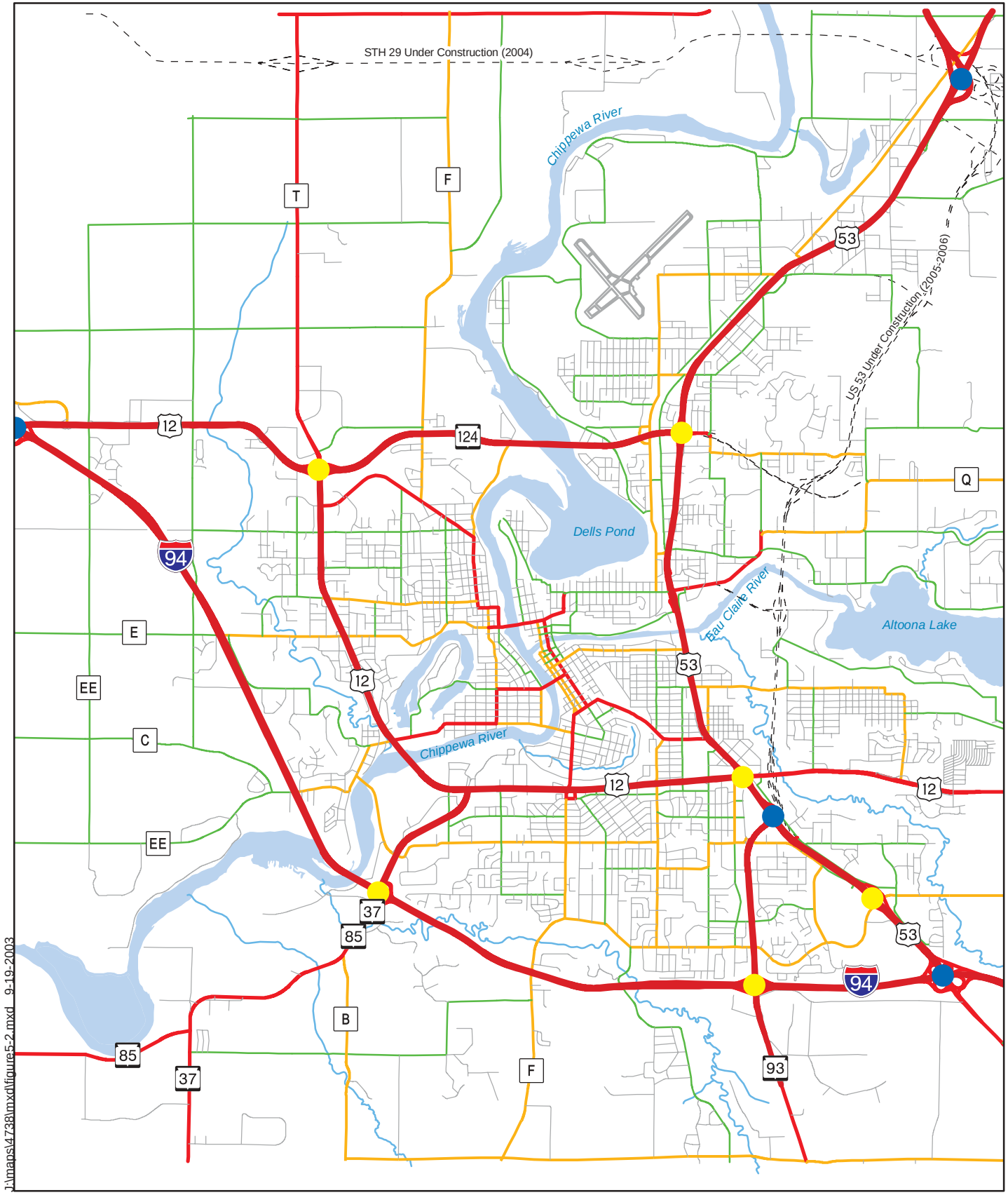
Roadway Type	Miles	Percent	Recommended Percent of System
Principal Arterial	31	10	5 - 10
Minor Arterial	27	9	10 - 15
Urban Collector	36	11	5 – 10
Local	223	70	65 – 80
Total	**317**	**100**	

Mileage and recommended percent of system taken from *Chippewa, Dunn, and Eau Claire Counties Regional Functional/Jurisdictional Study*, May 2001.

Functional classification was recently addressed in the *Chippewa, Dunn, and Eau Claire Counties Regional Functional/Jurisdictional Study*. Completed as a result of the U.S. Highway (USH) 53 and State Trunk Highway (STH) 29 realignment and reconstruction projects, this study addressed modifications to the existing functional classification and roadway jurisdictional systems.

Figure 5-2 displays the existing functional classification system for the City of Eau Claire. As shown on this map, there are numerous natural (i.e. rivers, lakes, etc.) barriers that influence traffic patterns within the City, and also affect certain key functional classification characteristics (i.e. access, continuity, trip length, travelshed size and roadway spacing). Among these are the Chippewa and Eau Claire Rivers which act as impediments to traffic flow. These barriers have few crossings and as the city grows, the need to traverse them will grow. Future connections and extensions over the Chippewa River should be explored. Currently, the North Crossing is the only roadway over the Chippewa River north of downtown in Eau Claire. It is worth noting, however, that STH 29, one of Wisconsin's major east-west routes is located approximately three miles north of Eau Claire in Chippewa County and it does provide access over the Chippewa River.

Overall, Eau Claire's roadway network, especially its principal arterials, provide mobility around the city. I-94 is a limited-access, principal arterial freeway that skirts the City's south and west side. US 53 (Hastings Way) and US 12 (Clairemont Avenue) are also principal arterials with highway-type designs. These roadways provide mobility for a large portion of the city. Other principal arterials routes, STH 124 (North Crossing), STH 93, and STH 37/85, also add mobility and connectivity to other trade areas.



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Eau Claire Comprehensive Plan

- National Highway System and Principal Arterial
- Principal Arterial
- Minor Arterial
- Collector
- Local

- System Interchange
- Access Interchange

1 Square Mile | 160 Acres

0 Feet 5,280

Figure 5-2

Road Functional Class System

Based on discussions with City staff and a review of the previous planning documents, several system issues were identified. These issues are outlined below:

- One of the most significant changes to the transportation system is the realignment of US 53 to a new location farther east. This future freeway will greatly improve the traffic flow along the east side of the city and will limit access to interchanges located at Clairemont Avenue (US 12), Birch Street, the North Crossing, and Melby Road. The northern portion of this project, north of STH 124, is expected to be completed in 2005 and the southern portion anticipated to be done in 2006. This new alignment will divert up to 20,000 vehicles per day from the existing Hastings Way.
- Another major system issue is the lack of any good arterial routes that connect the downtown area to the City's major arterials (I-94, US 53, STH 124, US 12/Clairemont Avenue). A future interchange along I-94 at Cameron Street has been discussed as a new entry to the City and downtown. Other possible options to improve downtown access include the upgrade of Birch Street from the new US 53 freeway and State Street from the south or the addition of the proposed bridge over the Chippewa River as an extension of Hendrickson Drive to Fifth Street. While this project has been controversial, it is included in the 1993 Comprehensive Plan.
- An additional system issue is roadway extensions into developing areas. An example of this need is the proposed extension of Third Street in Altoona at US 12 link with CTH AA, and eventually connect to US 53 and major retail development areas.

If the various continuity and access projects noted above are considered feasible, their impact on the future functional classification system should be evaluated during this planning process.

Roadway Jurisdiction

Roadway jurisdiction refers to the governmental agency that has ownership of the roadway. WisDOT provides funding to cities for general roadway maintenance and major construction projects based on an established tax revenue sharing system. Several county roads enter the Eau Claire City limits, and then become part of the city roadway system.

As stated earlier, a jurisdictional study was completed as part of the USH 53 and STH 29 realignment and reconstruction projects. Because of the traffic pattern impacts that these projects will have on the entire Eau Claire region, this study evaluated not only the jurisdictional classification for roadways but also their functional classification. Under the current conditions, the City is responsible for approximately 317 miles of roadways within the City boundary. Through a contract with WisDOT, the County is responsible for the maintenance of state roads, both inside and outside of the City limits.

The jurisdictional study did not address which entity (WisDOT or the City of Eau Claire) would be responsible for the existing US 53 (Hastings Way) once the new US 53 alignment opens. Negotiations have begun to determine which governmental entity will assume ownership and maintenance of this road.

For additional information regarding roadway jurisdiction in and around the City of Eau Claire, please refer to the *Chippewa, Dunn, and Eau Claire Counties Regional Functional/Jurisdictional Study* (May 2001).

Existing Network Characteristics

Signalized Intersections

As traffic increases and more conflicts arise, signalized intersections may be needed to reduce conflicts, crash severity, and enhance overall traffic flow. Traffic signals provide opportunities for side-street traffic to safely access mainline routes when gaps are insufficient. They can also be timed to give priority to the major roadway, and accommodate a high percentage of turning vehicles in a safe and efficient manner. While traffic signals have several benefits, they are expensive, need regular maintenance and from time to time need to be updated. Traffic signals can also cause safety and/or traffic flow problems if improperly used or designed. As a result, there are a strict set of standards (warrants) that must be met prior to design and installation. Eau Claire's signalized intersections are shown on Figure 5-3.

Lane Configuration

Because of the large number of local streets in the city, the vast majority of highways and streets are two-lane roads. However, there are several roads that have three or more lanes, most of which are classified as Principal Arterials (e.g. Clairemont Avenue), and there are several one-way streets (e.g. Barstow Street). Roads with more than two lanes and one-way streets are shown on Figure 5-3. While roadway capacity is often largely determined by the number of lanes, intersection geometry, traffic signals, parking, pedestrian activity, access and facility speeds play a significant part in determining how the facility operates.

Parking

Eau Claire utilizes a variety of parking restrictions to regulate on-street parking based on neighborhood characteristics or the type of roadway. Overall, on-street parking is generally permitted on both sides of the street throughout the City. The City does use alternate side parking from November 1 to May 1 from 12:00 A.M. to 6:00 A.M.

In addition to alternate side parking, there are a number of other special restrictions enforced by the City. Parking restrictions on both sides of the street are enforced along Highways 12, 37-85, 53, and 93 and Business 12. Parking restrictions are also enforced along segments of Farwell Street, State Street, 5th Street, Madison Street, Birch Street, Main Street, Lake Street, and Water Street. These streets contain some of the highest traffic volumes, and allowing on-street parking would decrease the capacity of these roads. Special restrictions are also in place near both high schools, North and Memorial, with no parking allowed in residential areas from 7:00 A.M. to 3:00 P.M.

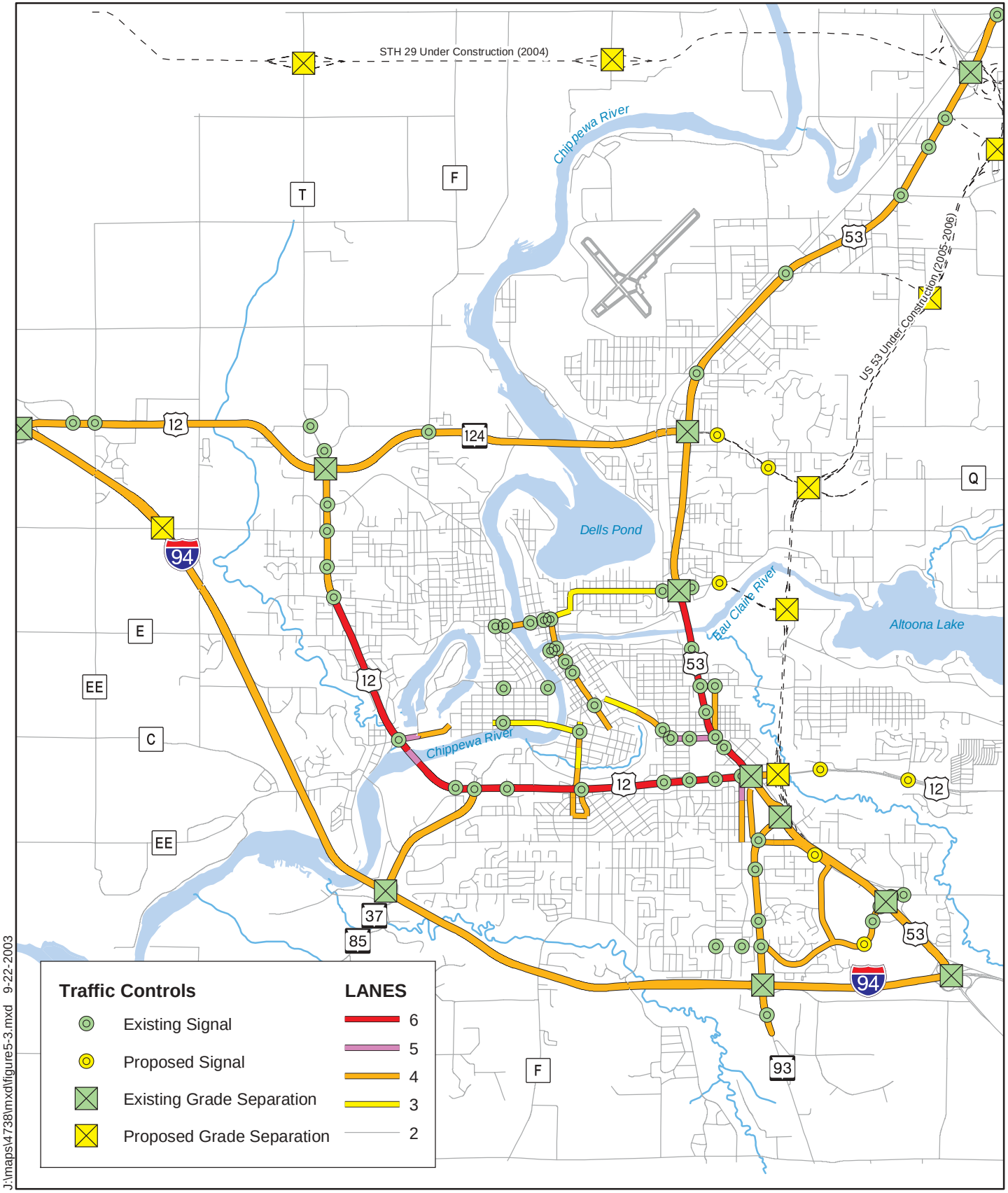
Traffic Volumes

The Wisconsin Department of Transportation regularly collects traffic count data for many roads in Eau Claire. The most recent traffic volume data was for 2001, and WisDOT is planning to collect additional data again in 2003. That volume information will be available in 2004.

Table 5-2 includes historic traffic volumes for Principal and Minor Arterial roads in Eau Claire. As shown, the highest volumes throughout the city are along US 53 (Hastings Way), US 12 (Clairemont Avenue), STH 124 and I-94. This is not surprising as these are the highest capacity roadways in the city, and they serve more regional trips than other city streets. While these roads tend to have the highest traffic volumes, selected local roads also had volumes above 10,000 vehicles per day (e.g. State Street, Farwell Street, Madison Street, Brackett Avenue and others).

Since 1990, traffic volumes on the majority of roadways have increased; however, other selected roadways have experienced some decline. Roads under the state or county jurisdiction all experienced an increase in traffic volumes since 1990. Other local roads such as Third Street and Madison Avenue have seen traffic volumes decline over the same time period.

A large reason for this decline in volumes may be attributed to the opening of STH 124 (North Crossing). This road serves as a major river crossing and has caused volumes on many of the local streets to decline. Significant decreases in traffic volumes that can be related to the opening of the North Crossing are: Truax Boulevard, Third Street, Platt Street, Oxford Avenue and Birch Street. These roadways are either parallel routes or alternate routes to STH 124 (North Crossing). It is further interesting to note that the 2001 volumes for STH 124 already exceed the original 2010 forecasts.



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Eau Claire Comprehensive Plan

1 Square Mile
160 Acres
0 Feet 5,280

Figure 5-3

Lane Configuration and Traffic Controls

Table 5-2
Historic Traffic Volumes

Roadway	From	To	Historical Average Daily Traffic Volumes					Percent Change (1990 - 2001)
			1990	1993	1995	1998	2001	
I-94	US-12 (Exit 59)	STH 85 (Exit 65)	13,900	18,900	18,400	19,700	21,100	51.8%
	STH 85 (Exit 65)	STH 93 (Exit 68)	13,730	19,100	21,800	23,700	32,000	133.1%
	STH 93 (Exit 68)	US 53 (Exit 70)	11,350	15,700	15,100	21,800	24,000	111.5%
US-12	I-94	CTH T	N/A	N/A	14,800	16,700	18,200	23.0%
	CTH T	STH 85	13,500	16,700	18,100	23,100	25,900	91.9%
	STH 85	US-53	30,600	29,400	26,300	29,600	32,900	7.5%
	US-53	East City Limits	14,700	16,700	16,000	17,700	19,700	34.0%
US-53	North City Limits	STH 124	30,700	32,300	33,600	42,900	47,800	55.7%
	STH 124	STH 93	37,800	37,500	37,800	42,500	44,200	16.9%
	STH 93	South City Limits	11,500	16,200	17,700	17,700	18,500	60.9%
STH 85	I-94	US 12	9,400	10,900	9,700	11,800	11,800	25.5%
STH 124	US 12	US 53	0	Opened	13,900	19,100	20,600	100%
STH 93	US 53	South City Limits	11,100	13,700	15,000	16,800	16,800	51.4%
CTH T	North City Limits	US 12	N/A	N/A	2,900	3,600	4,700	62.1%
CTH Q	US 53	McKinley Rd	10,500	13,100	9,600	8,900	11,700	11.4%
CTH F	I-94	State St.	N/A	N/A		2,600	3,100	19.2%
CTH S	State St.	Rudolph Rd.	4,800	5,900	4,900	6,900	7,100	47.9%
CTH AA	US 53	East City Limits	N/A	N/A	10,400	14,700	17,200	65.4%
Truax Blvd.	US 12	3rd St.	6,700	3,900	3,900	3,400	3,600	-46.3%
Third St.	Truax Blvd.	Vine St.	10,800	7,000	6,300	7,050	8,250	-23.6%
Platt St.	Third St.	Oxford Ave.	12,300	10,300	8,150	11,100	9,050	-26.4%
Oxford Ave.	Platt St.	Madison St.	11,530	14,300	8,100	8,600	7,700	-33.2%
Madison St.	Bellinger St.	Germana St.	14,600	17,300	13,100	15,500	15,100	3.4%
Birch St.	Dewey St.	US 53	17,700	17,300	14,100	11,400	12,400	-29.9%
Farwell St.	Madison St.	Washington St.	14,200	11,800	13,000	14,200	11,700	-17.6%
Menomonie/ Water St.	US 12	Fifth Ave.	11,300	11,600	10,200	11,900	9,350	-17.3%
Fifth Ave.	Lake St	Water St.	8,200	8,800	7,800	8,600	7,800	-4.9%
Lake St.	Fifth Ave	Farwell St.	8,800	9,400	8,300	7,700	7,900	-10.2%
State St.	Lexington Blvd.	Washington St.	16,000	17,400	13,800	14,600	14,000	-12.5%
Washington St.	State St.	Harding Ave.	12,500	13,200	11,000	9,900	9,300	-25.6%
Harding Ave.	Washington St.	Rudolph Rd.	13,500	16,600	17,200	15,300	18,200	34.8%
Brackett Ave.	Rudolph Rd.	US 53	16,100	17,300	16,700	17,100	17,300	7.5%
Cameron St.	I-94	US 12	2,200	4,700	2,900	3,700	3,900	77.3%
	US 12	Fifth Ave.	5,000	11,400	6,700	9,250	11,400	128.0%
Barstow St.	Madison St.	Eau Claire St.	8,500	11,000	6,800	7,800	6,550	-22.9%
	Eau Claire St.	Washington St.	4,000	4,900	3,600	3,700	3,600	-10.0%
Water St.	Fifth Ave.	State St.	12,900	13,000	13,900	14,200	11,650	-9.7%
Golf Rd.	Cottonwood St.	STH 93	6,100	9,800	9,400	10,100	10,450	71.3%
	STH 93	US 53	6,000	9,900	11,350	9,800	9,500	58.3%
London Rd.	US 12	Hamilton Ave.	4,700	8,400	8,800	7,050	7,050	50.0%

Volume-to-Capacity Ratios

A volume-to-capacity (V/C) ratio is an index that can be used to evaluate whether a road is over capacity based on its volume and design. The V/C ratio is a comparison of the volume on a road to the volume that the roadway is capable of carrying based on its design.

Roads generally operate poorly at or near capacity and are rarely designed to operate in that range. The V/C ratio is intended to estimate the maximum amount of traffic that can be accommodated by a facility while maintaining desired operational qualities. A V/C ratio uses traffic volumes and the roadway's design capacity to determine if the section will be congested or experience delay.

Ranges of operating conditions are defined for each type of facility and are related to the amount of traffic that can be accommodated at different levels of service. While the volume fluctuates for each road, the design type for each roadway has a set capacity. Table 5-3 contains the design types and capacity thresholds that have been established for roads in Eau Claire.

Table 5-3
Roadway Description and Volume Thresholds

Roadway Description	Volume Threshold
Urban Sections:	
U-1: Two-lane at-grade urban arterial at 25 mph	10,000
U-2: Two-lane at-grade one-way urban street at 25 mph	14,000
U-3: Two-lane at-grade with turn lanes/three lanes	16,000
U-4: Four-lane at-grade at 25 mph	24,000
U-5: Four-lane expressway at 45 mph	35,000
U-6: Five-lane at-grade at 25 mph	24,000
U-7: Six-lane at-grade at 45 mph	45,000
U-8: Four-lane grade-separated at 45 mph	60,000
Rural Sections:	
R-1: Two-lane at-grade 45-55 mph	14,000
R-2: Two-lane reduced capacity (limited visibility, poor geometrics)	8,000
R-3: Expressway at 45-55 mph	45,000
R-4: Four-lane grade separated	60,000

A V/C ratio below 0.85 allows for good flow, reliable speeds and safe operating conditions. Segments that have a V/C ratio above 0.85 indicate a progressively congested roadway that will have increasing safety problems, delay and operational deficiencies. Figure 5-4 displays the V/C ratios for roadways within the City.

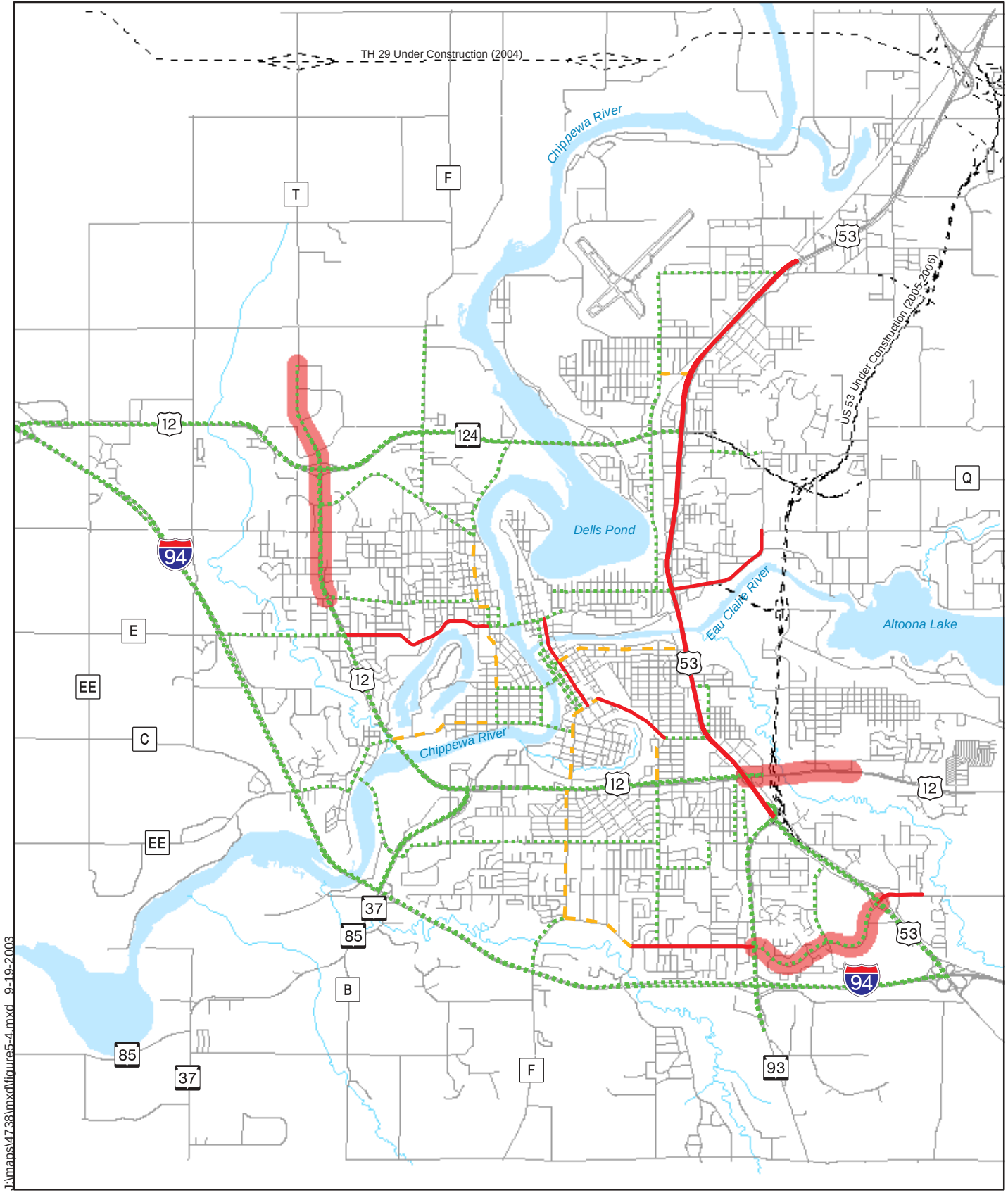
Another congestion measure, level of service (LOS) analysis, is also commonly used to determine the operating conditions of a roadway. LOS uses a rating system of "A" through "F," with "A" as the highest rating (free flow conditions). Generally a V/C ratio over 1.00 would be rated LOS "F" meaning that the road is over-capacity, experiences major delays, and most or all vehicles stop at signalized intersections.

While Eau Claire has developed as a thriving economic center for west-central Wisconsin, traffic volumes and congestion have been well managed, and are not a major system problem. This is due in part to the design capacity of the roadways and alternative routes provided by the developed grid network through much of the city.

However, selected locations during the peak hour do produce delays. Two areas of concern are Oakwood Hills Drive during the holiday shopping season and State Street when school is in session. Neither of these sites were identified by the V/C analysis, since most of the problems are a result of seasonal type volumes and/or specific intersection issues. WisDOT is currently working to improve the traffic flow and intersection delay near Oakwood Mall with a traffic study along Golf Road. Results of this study will be incorporated into the plan section of this document.

According to the V/C analysis, US 53 (Hastings Way) is one particular roadway that does experience congestion. The new US 53 freeway will alleviate much of the existing congestion on Hastings Way and allow for more free flow conditions. CTH Q, CTH AA, Farwell Street, Harding Avenue, and a portion of Cameron Street are also congestion locations based on this V/C analysis.

During 2003 and 2004, the Eau Claire Metropolitan Planning Organization will be updating its regional traffic model. This model incorporates existing traffic volumes, road capacities, existing and proposed land uses, transit use, and other multi-modal factors to determine future traffic volumes for the majority of roads in the Eau Claire metropolitan area. Based on past forecasts, increases are expected in population, number of dwelling units, employment and consequently, vehicle miles traveled. Areas that are identified by the forecast model, as being congested either by a V/C ratio or LOS analysis, will be examined further to determine if any improvements are needed or warranted.



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Eau Claire Comprehensive Plan

- <0.80 - Uncongested
- 0.80 - 0.99 - Near Congested
- >= 1.00 - Congested
- Delay Areas

1 Square Mile — 160 Acres

0 Feet 5,280

Figure 5-4

Volume-to-Capacity Ratio, 2001

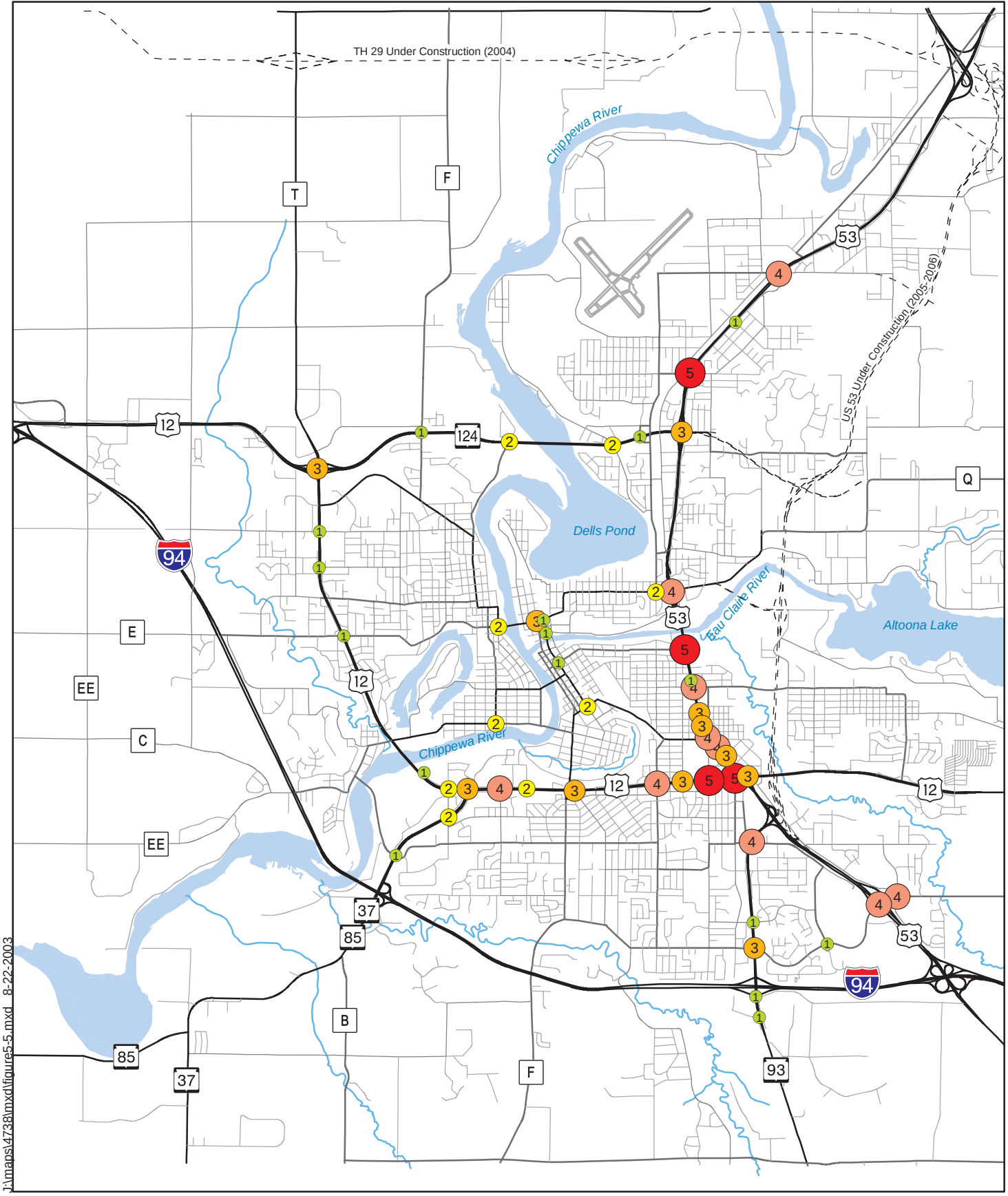
Safety Analysis

Crash data was obtained from the Wisconsin Department of Transportation (WisDOT) for a three-year period (2000-2003). Sites that have an average of five or more crashes per year were classified as "high crash locations" and are noted on Figure 5-5.

Many of the high crash locations are along State Trunk Highways at signalized intersections. Clairemont Avenue and US 53 carry the largest traffic volumes through the urbanized area, and also have the most crashes. The large amount of traffic and the number of access points are contributing factors to the high number of crashes along these roadways. Currently, crash rates on the existing US 53 (Hastings Way) corridor are three and a half times the state average. The proposed realignment and limited access design of the new US 53 freeway is intended to result in fewer crashes on this highway.

STH 124, another roadway with high traffic volumes, also exhibits locations with several crashes. However, the total number of crashes along STH 124 is substantially less than along Clairemont Avenue and Hastings Way because of the limited access along STH 124. The skewed design of STH 124's intersection with Wells Road and Riverview Drive may explain the number of crashes that have occurred at these locations.

Various types of roadway and intersection improvements can be constructed to improve safety and reduce crash statistics. Areas with a significantly high number of crashes will be addressed later in the Plan component.



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Eau Claire
Comprehensive Plan

Crashes

1	9 - 19
2	20 - 30
3	31 - 42
4	43 - 74
5	75 - 103

1 Square Mile
160 Acres
0 Feet 5,280

Figure 5-5

High Crash Locations, 2000-2002

Right-of-Way and Roadway Standards

According to the City's Subdivision Ordinance, right-of-way standards for Eau Claire range between 60 feet for minor streets to 80 feet for major streets. Collector streets require a 66 foot right-of-way which is commonly found on many of Eau Claire's streets. These standards are followed for all new streets. Some of the existing city streets have very wide right-of-way widths such as Melby Street with an 80 foot right-of-way. Highways such as US 12, US 53, and I-94 have right-of-way widths that exceed 100 feet.

Road widths are generally determined by the road's function, traffic volumes, parking regulations and various other factors. The Subdivision Ordinance also has standards that relate to street widths. The range of street widths is generally between 30 feet for minor streets and 48 feet for major streets. The 30 foot width for new minor streets provides for two lanes of traffic and on-street parking. This width of street helps to keep speeds low, minimizes cut-through traffic in neighborhoods, and maintains a residential neighborhood atmosphere. Streets that generally carry more traffic and have higher speeds are typically wider than 30 foot minimum for minor streets. Collector streets, for example, have a 36-foot minimum roadway width.

Local street widths should be wide enough to accommodate traffic at appropriately low speeds, and to allow some on-street parking. Recent new housing has typically included two or three garage and driveway space, requiring on-street parking only for visitors.

Mobility and Accessibility

Roads are typically classified along a continuum of mobility and access. Mobility is typically best served by a freeway type facility with very little access, usually in the form of interchanges. Access is the ability to reach nearby property. Local streets and cul de sacs provide the highest level of access with many driveways, narrow widths and curved alignments with parking on one or both sides.

Maintaining a balance between mobility and access is important to the success of the road network. Overall, Eau Claire has an effective mix of arterial, collector and minor roads.

However, a few major mobility and access deficiencies do exist in Eau Claire and include:

1. A shortage of arterial or collector links across I-94, especially in the southeastern corner of the urban area
2. The lack of an I-94 interchange between the North Crossing and Hendrickson Drive.
3. A lack of direct access to downtown Eau Claire (for example, there currently is no direct connection to the new US 53 freeway or from I-94).

Access Management Strategies

Several roads in Eau Claire could benefit from some form of access management. Many of the major arterials have multiple driveways and inadequate access spacing. Hastings Way (US 53) is an example of inadequate spacing and site design decisions diminishing the road capacity to the point where a new alignment was necessary. Many of these access management decisions were made by either State or City officials, and all parties have learned a valuable lesson regarding the long-term benefits of a good access management program.

While the City does not have formal access management policies, they do refer to their ordinance's Planned Unit Developments (PUD) standards and use a site plan review process, as well as WisDOT access standards, and the Institute of Transportation Engineers (ITE) Manual during access location deliberations.

Adopting an access management plan can improve traffic operations through improved traffic flow, increased capacity and improved vehicular and pedestrian safety.

An access management plan may include:

- Eliminating uncontrolled left-turning movements by creating medians
- Combining and sharing driveways
- Eliminating unnecessary driveways
- Creating right turn lanes where possible
- Creating dedicated left turn lanes at intersections
- Creating right-in, right-out only intersections
- Creating frontage roads where appropriate.

Access management can be beneficial for businesses and residents, when combined with additional streetscaping elements. Occasionally, cities will face opposition to access management from businesses and residents. Business owners are often fearful that eliminating additional driveways or installing a median will result in reduced customers and sales. Residents dislike access management because of the limitations on turning. However, many communities have worked with business owners and residents to create solutions that result in efficient corridors with improved safety and operations.

Modal Elements

Freight and Shipping Facilities

The movement of goods in and out of the Eau Claire area is one of the primary functions of the transportation system. A system that is easily accessible for large trucks with close access to major highways is desirable for businesses, which in turn, improves the economic well being of the City. There are several manufacturing and warehousing centers in Eau Claire, most them are near a major highway.

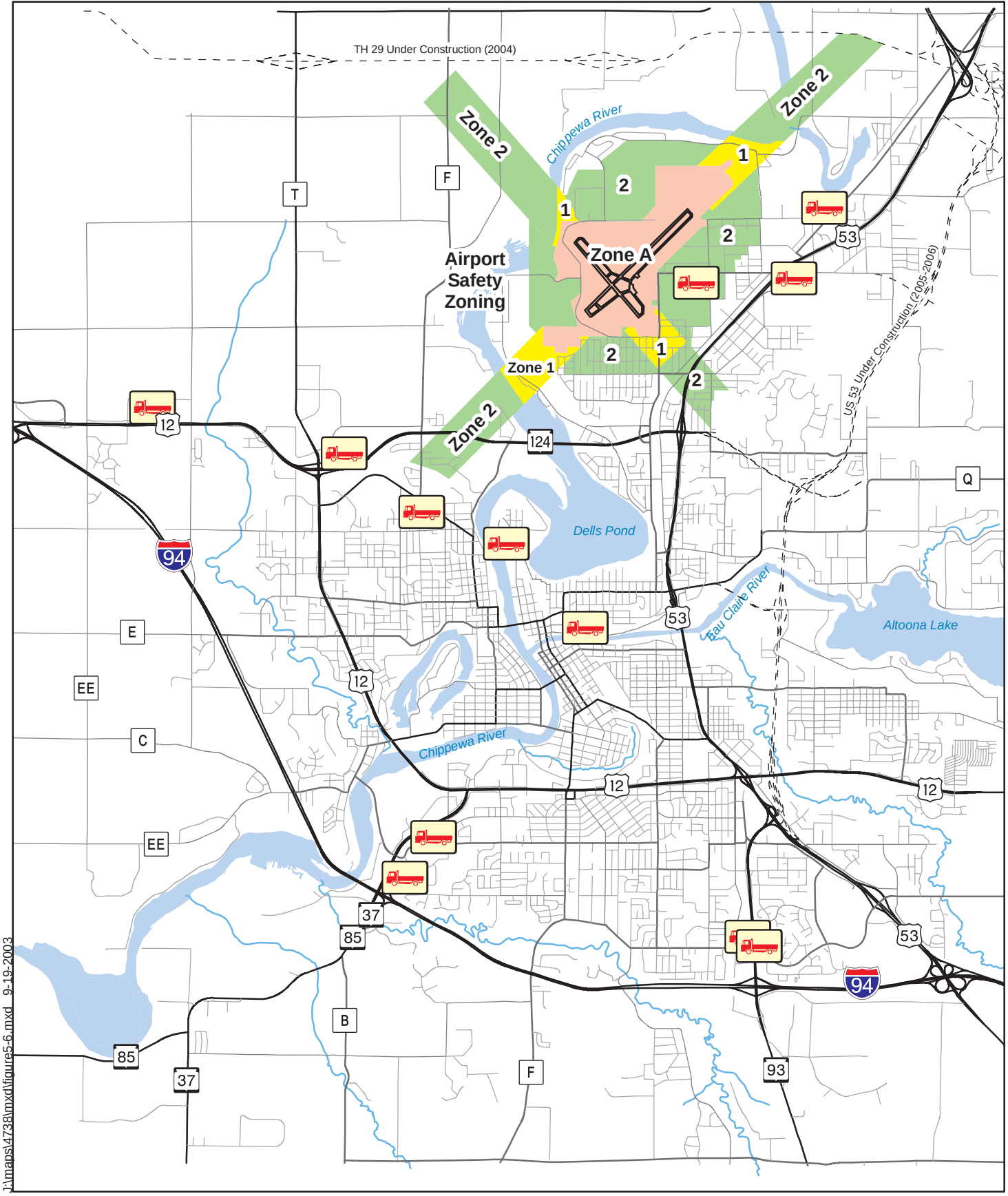
Eau Claire's highway system is well designed to accommodate the flow of external freight movement. STH 124, built in the early 1990s, provides excellent access to I-94 and US 53. Just north of Eau Claire is STH 29. This roadway travels east-west across the state connecting I-94 on the west with Green Bay on the east. These highway connections allow for goods to be shipped in any direction in and out of the Eau Claire area. Other small manufacturing sites are located throughout the city with many of the recent developments being located in close proximity to these major highways.

Truck traffic through local neighborhoods has been an issue the City has dealt with in the past. Currently there are no official "truck routes" through Eau Claire. Efforts by residents to restrict truck traffic from residential areas have been made. At this point, the City Council has responded to these concerns by prohibiting truck traffic through certain neighborhoods. Truckers are informed of these prohibitions by posted street signs.

A Union Pacific (UP) rail line runs east-west through the city. The UP line also runs north, crossing the Canadian Pacific line in Chippewa Falls. The UP line is classified as a Class I railroad according to the Interstate Commerce Commission (ICC) based on its level of revenues and national operation. As a transcontinental line, the UP line connects Eau Claire with Minneapolis-St. Paul and Chicago, and beyond. Overall, Eau Claire is not heavily dependant on rail transportation for the shipment of goods.

Some of the industrial parks within Eau Claire are located near rail service. The Gateway Industrial Park and Banbury Place Warehousing are located near major highway routes and also have access to rail transportation.

Figure 5-6 identifies major freight and shipping facilities in and around Eau Claire.



Eau Claire Comprehensive Plan

Freight or Shipping Facility

1 Square Mile | 160 Acres

0 Feet 5,280

Figure 5-6

Freight and Shipping Facilities, 2003

Transit System

The Eau Claire Transit (ECT) provides transit service for the City of Eau Claire. The Metropolitan Transit Development Plan (TDP) is currently being updated. The TDP includes specific data regarding the transit facilities, fleet size, ridership information, funding information, routes, schedules, and fares. A summary of the city's transit system characteristics, as provided by the TDP, is provided below.

Major Generators

The City of Eau Claire serves as the major metropolitan area for a large portion of western Wisconsin and as a result is home to a number of large businesses, manufacturing plants and other high employment locations. These types of locations are ideal candidates for a transit system because of the high worker concentration. The list of locations with high employment includes the University of Wisconsin Eau Claire (UWEC), Oakwood Mall and selected other employers or retail centers. In addition to existing transit routes, Figure 5-7 also displays the major generators in and around the City of Eau Claire.

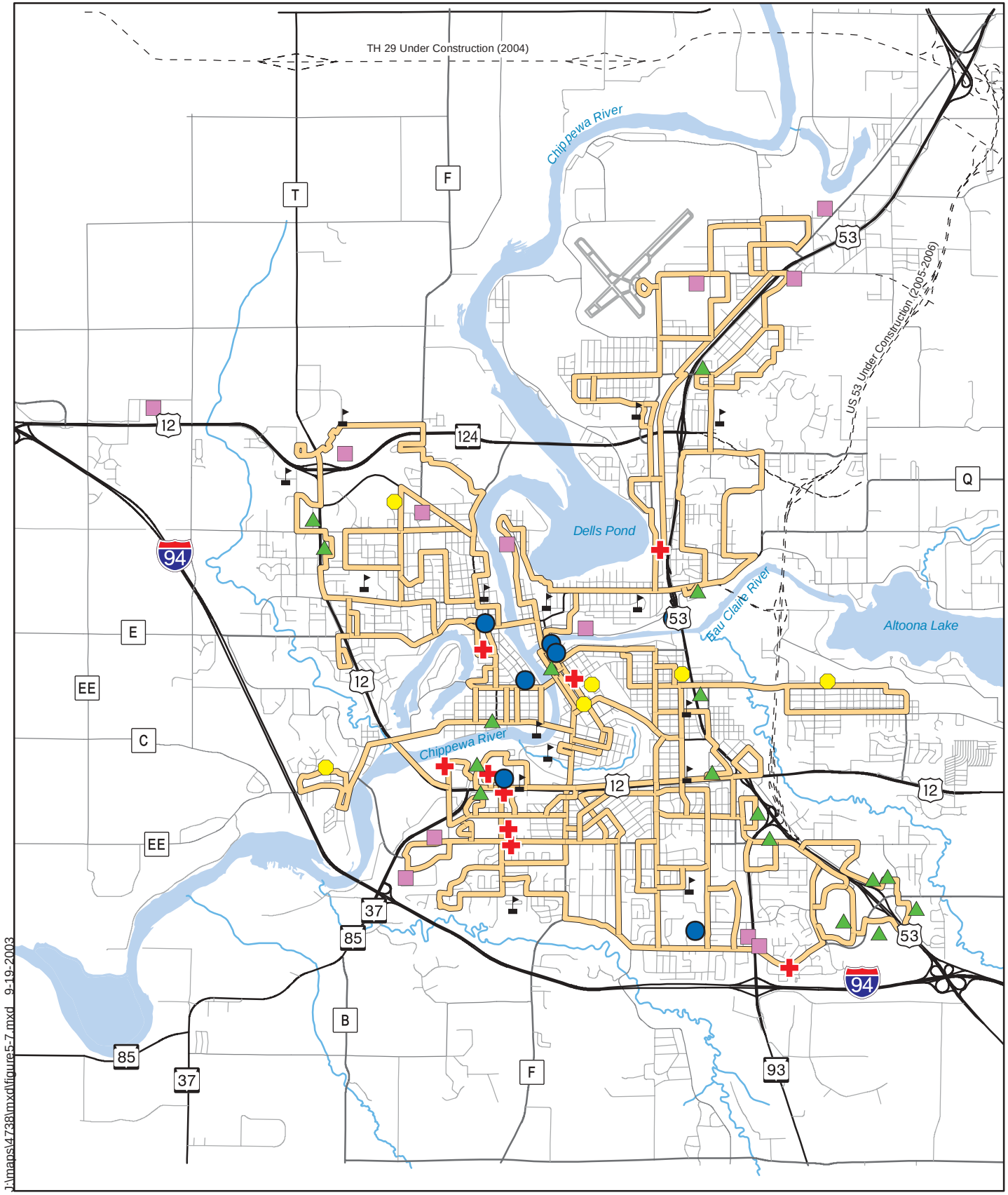
Service Coverage

The Eau Claire transit service coverage area is defined as an area one-quarter of a mile from the fixed route service. This is the distance that people typically will walk for transit service. Figure 5-7 illustrates the current ECT transit routes for weekday service. As shown on Figure 5-7, transit service for the City of Eau Claire is quite extensive, with service also extending to a portion of Altoona. The evening service coverage area is similar to daytime weekday and Saturday service, except for service to Altoona. Buses are in operation weekdays from 6:00 A.M. to 10:30 P.M., and Saturday service runs from 8:00 A.M. to 6:00 P.M.

Land Use and Transit Relationships

Land use decisions greatly affect a city's transportation system, especially as it relates to transit use. For fixed route transit to be successful, the following land use conditions should be present:

- Residential densities need to be high so that transit can serve a large population base relative to a short distance to stations and stops.
- Employment and commercial districts should be located in a centralized location (i.e. downtown) serving as a primary destination for a large portion of the population.
- The Central Business District (CBD) and other businesses should be within walking distance from transit stations to encourage use.
- An integrated pedestrian system should be in place providing a comfortable, safe and attractive environment for users.
- Auto-related uses should be balanced with the mobility and access needs of pedestrians.



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Eau Claire Comprehensive Plan

- Retail
- Industrial or Business Park
- Public Building
- School
- Clinic or Hospital
- Housing for the Elderly
- Transit Routes

1 Square Mile — 160 Acres

0 Feet 5,280

Figure 5-7

Transit Routes and Major Generators, 2003

Fixed Route Service

The ECT's fixed route service area population in 2001 was approximately 66,400. This is above average compared to similar Wisconsin systems. Generally, ECT fixed route ridership is evenly distributed among its 11 regular weekday routes. Routes running through the UWEC campus area and the Folsom Street/Vine Street/Memorial High School area tend to have the highest ridership numbers, with the remainder of routes carrying roughly the same number of passengers. Revenue ridership statistics since 1998 are presented in Table 5-4. It is noteworthy to highlight the ECT's current ridership levels as compared to a few years ago. In 1995, the ridership was approximately 377,000 or half the current level. The ECT and the City made critical decisions at that time on the future of City transit service. It was decided to improve the system performance and ridership by expanding routes and times/days of service. These actions have proven very effective in increasing ridership.

Table 5-4
ECT Revenue Ridership (1998 – 2002)*

1998	1999	2000	2001	2002	Percent Change
773,958	786,184	802,510	858,116	849,656	9.8%

Source: Eau Claire Transit
*Ridership totals include only revenue trips. Does not include free trips (children under five), transfer trips or paratransit riders.

In order to meet federal requirements, financial information for the ECT is assembled by transit staff annually regarding the annual revenues and expenditures. Table 5-5 includes the ECT's total revenues and expenditures from 1998 to 2002.

Table 5-5
ECT Transit Revenue and Expense Trends (1998 – 2002)

	1998	1999	2000	2001	2002	Percent Change*
Total Revenues	$2,289,048	2,885,568	2,806,970	3,257,378	3,173,618	39
Total Expenses	$2,538,761	2,750,820	2,990,630	3,513041	3,664,320	44

Source: City of Eau Claire Budget Reports
*Percent change from 1998 to 2002

Bus fares for the ECT are $1.00, including one free transfer. Those riders above 65 years of age or disabled receive a half price discount (50 cents). Tokens and other discount passes are available for those interested in purchasing more rides at one time. In addition, students may purchase a "max" pass for $30 per semester or $20 for the summer.

Overall, the ECT is relatively cost-effective operating transit system. Compared to other transit systems in Wisconsin, the ECT has the lowest operating cost per mile at $3.35 and the lowest cost per trip ($2.27). While the system operates in a cost-effective manner, it also has the lowest revenue per trip ($0.37).

The ECT has challenges facing its operation in the years to come. Budget cuts and constraints greatly affect transit service because of the subsidies required to operate the system. The ECT is currently facing staff and route reductions because of funding cuts. The size and quality of the transit fleet also is another important element of the ECT. Currently, the ECT vehicle fleet has 22 vehicles, with the majority being 2001 or 2002 Gillig buses. Daily, fixed route peak service utilizes 16 vehicles to provide service. Table 5-6 summarizes the ECT vehicle fleet.

Table 5-6
ECT Vehicle Fleet

Vehicle Fleet	Active Fleet	Seating Capacity*	Propulsion
1997 New Flyers	8	25 / 2	Diesel
2001 Gillig Coach	8	25 / 2	Diesel
2002 Gillig Coach	6	40 / 2	Diesel
Total Vehicles	**22**		

Source: *Eau Claire Transit Development Plan and Long Range Plan Element, Technical Memorandum #1*
* Seats/Wheelchair Stations

Paratransit Service

ECT also provides paratransit service to people in Eau Claire and Altoona. This demand-responsive door-to-door service is in full compliance with the Americans with Disabilities Act. Passengers must call for reservations, and a one-way passenger fare service costs $2.00. Currently there are 12 to 14 vans being operated in this service in Eau Claire County, with most vehicles operating in Eau Claire or surrounding communities. Table 5-7 provides additional information regarding paratransit operating statistics. It is interesting to note the change in passenger trips and cost per trip statistics between 2000 and 2001. This increase in passenger trips and decrease in cost per trip was partially the result of a cooperative procurement process which selected a new paratransit service provider. The new provider has improved overall system performance.

Table 5-7
ECT Paratransit Operating Statistics

Operating Statistic	1999	2000	2001	2002	Percent Change
Passenger Trips	25,929	27,634	41,855	40,244	55
Annual Operating Cost	$ 372,000	439,900	490,000	574,740	55
EC County Contribution	$ 120,414	122,800	146,000	163,887	36
Cost perTrip	$ 14.35	15.92	11.71	10.39	-28

Source: *Eau Claire Transit Development Plan and Long Range Plan Element, Technical Memorandum #1*

Non-Motorized Transportation

The central portion of Eau Claire was developed at a time when streets were interconnected and laid out in a grid pattern. This pattern of street development spawned a compact, mixed-use, and most importantly, walkable community. As the city expanded outward from its original downtown area, the street system evolved into a suburban pattern with more cul-de-sacs, fewer sidewalks, and segregated land use. Thus, in newer portions of the city, dispersed land use and lack of continuity between streets create longer, circuitous routes that discourage pedestrian activity.

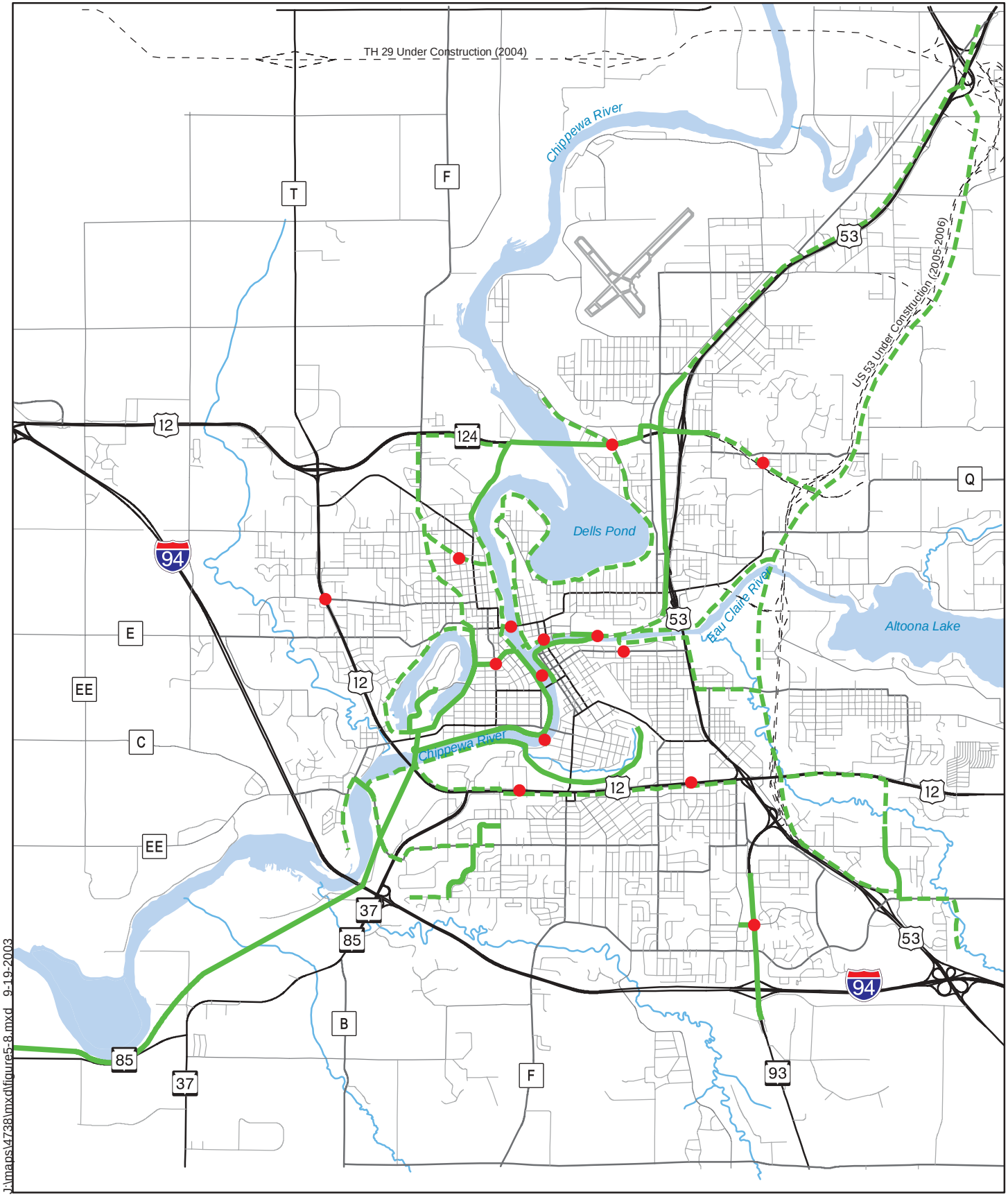
Pedestrian Generators and Facilities

The majority of pedestrian activity in the city is located downtown and within the University of Wisconsin–Eau Claire campus. To ensure that walking remains a safe mode of travel in these areas, the City has constructed over/underpasses at the intersections of West Clairemont Avenue and University Drive and at Fifth Avenue and Chestnut Street. Pedestrian bridges crossing the Chippewa and Eau Claire Rivers have been constructed on the UWEC campus and near Banbury Place (other grade separations benefiting pedestrians are noted below). The City has also made an effort to promote walking by creating a pedestrian promenade along the Chippewa and Eau Claire Rivers.

Current city policy requires every new street to have a five-foot wide sidewalk on both sides, subject to City Council review. This ordinance dates back to the mid 1980's and since this time there has been inconsistent implementation of the sidewalk ordinance by changing City Councils. The result has been a mixture of streets with sidewalks on both sides, one side, or no sidewalks on either side, especially in the recent growth areas. This has produced gaps in the pedestrian system. The City's past practices and its sidewalk ordinance should be reviewed.

Bicycle Facilities

The Chippewa-Eau Claire MPO has identified bicycling as an important alternative mode of transportation. Currently, the city has three major off-street trails, and a system of shared roadways but no striped bicycle lanes. The centerpiece of Eau Claire's off-street trail system is the Chippewa River State Trail, a 37-mile state-run facility, running along the Chippewa River. There are several local trails in Carson Park, Putnam Park and in the right-of-way of local streets.



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Eau Claire Comprehensive Plan

- Existing Multiple-Use Path
- Proposed Multiple-Use Path
- Grade Separated Facility

1 Square Mile | 160 Acres

0 Feet 5,280

Figure 5-8

Multiple-Use Path Network

Several separated grade facilities for pedestrians and bicyclists are included in the present sidewalk and trail network. These facilities are:

- Memorial High School tunnel under Clairemont Avenue
- Chippewa Valley Technical College bridge over Clairemont Avenue
- Fine Arts Building bridge over the Chippewa River
- Uniroyal/Boyd Suspension bridge over the Eau Claire River
- Grand Avenue bridge over the Chippewa River
- Railroad Street bridge
- Soo Line "S" Bridge
- North Crossing at Riverview Drive (along trail)
- North Crossing at McKinley Road
- Old railroad right-of-way at 5th Avenue underpass
- 5th Avenue/Chestnut Street underpass
- STH 93/Damon Street underpass
- STH 12/Vine Street underpass (2004)
- Main Street underpass at Boyd School

Figure 5-8 identifies the existing trail system and grade separated crossings throughout Eau Claire.

In 1994, the MPO issued the *Bicycle Transportation Plan, 1995-2020*, which analyzed existing conditions, identified gaps, and made recommendations for an urban bikeway system. The Bicycle Facilities Planning Committee agreed to use the urban arterial and collector road system along with riverway and railroad right-of-way as bicycle travel corridors in the urban area. The result of the planning effort identified a 191-mile network of off-road trails, bicycle lanes, and wide curb lanes that make up the existing and proposed bikeway system. This network would contain 137 miles of on-street facilities and 54 miles of bike paths.

Currently identified gaps in the bicycle system exist along the northern portion of the Chippewa River and on the southwestern border with the City of Altoona. These gaps are also identified on Figure 5-8.

Air Transportation

The Chippewa Valley Regional Airport is the airport located on the north side of Eau Claire. This facility has an intersecting runway configuration with the primary runway being 7,301 feet long, 150 feet wide and running in a northeast-southwest direction. The other runway serves as a crosswind runway is oriented in a northwest-southeast direction and is 4,999 feet long and 100 feet wide. The pavement condition on both runways is currently in excellent condition.

The Chippewa Valley Regional Airport is equipped with a variety of airfield lighting systems. The airport is equipped with a rotating beacon serving as identification lighting. Both runways also are equipped with runway and taxiway lighting. The primary runway has high intensity runway lighting and the crosswind runway has medium intensity runway lights. In addition, lighted airfield signs are installed at all taxiway and runway intersections. These lights are installed to assist pilots while navigating on the airfield. The Chippewa Valley Regional Airport is equipped with various other lighting systems to safely aid pilots.

In addition to excellent runway facilities, the Chippewa Valley Regional Airport also has several landside facilities. Included in these facilities is a 25,385 square foot passenger terminal building that provides airline ticketing and operations, baggage claim, rental cars, airport administration, departure gates and a restaurant. Both short- and long-term parking are available at the airport.

Eau Claire County, consistent with Federal Aviation Administration (FAA) requirements, has established a zoning overlay district that limits the height of structures near the airport property. This zoning overlay consists of three tiers of zoning. The first zone contains the airport perimeter and zoning of airport buildings, Zone 2 is the next adjacent zone from the airport runways and limits building height and density, and Zone 3 are other adjacent areas to the airport that includes a structural height limit. These zones are shown on Figure 5-6.

Scheduled air service is provided by Northwest Airlink (Mesaba Airlines) using 34-passenger turboprop aircraft to and from Minneapolis/St. Paul International Airport. Passenger service has fluctuated at the airport since 1984, with recent declines in boarding passengers occurring during the late 1990s. Table 5-8 summarizes historical passenger enplanement (boardings) data for the Chippewa Valley Regional Airport.

Table 5-8
Annual Enplanements

Year	Enplanements	Percent Change
1998	19,660	N/A
1999	19,833	0.87
2000	20,124	1.47
2001	21,399	6.34
2002	20,229	-5.47

Source: *Chippewa Valley Regional Airport*

Currently there are no air cargo services provided through the Chippewa Valley Regional Airport. With the exception of limited air freight carried by Northwest Airlink during regularly scheduled flights and occasional shipments of gasoline and airplane maintenance products, there are no air cargo services at the Chippewa Valley Regional Airport. This being said, it is difficult to estimate the amount of cargo shipped into or out of the Eau Claire region.

Intergovernmental Relationships

Institutional Relationships

The City of Eau Claire has several different types of relations with other governmental agencies. Most of the arrangements in place deal with funding or cooperative agreements. The most significant agreement in place regarding transportation is between WisDOT and the City regarding the allocation of dollars to maintain the city's functional classified streets. The City also works closely with Eau Claire County on projects that affect transportation issues within the City.

Metropolitan Planning Organization (MPO)

The City of Eau Claire became an urbanized area in 1980 and the Chippewa-Eau Claire MPO was formally established in 1982. The West Central Regional Planning Commission (West Central) houses the Chippewa-Eau Claire MPO. The MPO completes all federally required transportation planning activities for the metropolitan area, (such as the maintenance of a Metropolitan Transportation Plan and its modal elements and the annual preparation of a Metropolitan Transportation Improvement Plan) and it conducts various demographic traffic forecasting and special transportation planning studies.

Committed and Planned Projects

Improvements that will enhance Eau Claire's transportation system and alleviate future congestion and safety issues are identified by various planning agencies with jurisdiction over the City's street system. Funding plans that have an effect on the City include the Eau Claire Capital Improvement Program (CIP), the MPO's Transportation Improvement Program (TIP), and the State Transportation Improvement Program (STIP). These documents plan and program local, state, and federal money for the next 4 years (2003 – 2006).

The City of Eau Claire, through the CIP, has several general programs in place for various types of maintenance and regular improvements. These programs are regularly budgeted each year include a city-wide street and sidewalk improvement program, a bituminous overlay program, a program to repair concrete joints, and a boulevard tree program. In addition, the City regularly receives Hazard Elimination Project funds and Surface Transportation Program funds.

The projects included in these various plans cover a wide variety of multi-modal transportation improvements such as street maintenance, streetscaping, safety improvements, road construction, new roadway alignment and bicycle/pedestrian facilities. Listed below are the programmed projects with a cost greater than $500,000:

- North Barstow/Downtown Redevelopment (2003-2004)
  Extension of Forest Street (Riverfront Terrace) and improvements to Forest, Hobart, Madison, Barstow, and other adjacent streets
- Galloway Street from Farwell Street to US 53 (2004-2005)
  Reconstruction of roadway and relocation of UP Rail crossing
- Boyd Park Bicycle/Pedestrian Bridge (2004)
  Bridge over Eau Claire River
- LaSalle Street from McKinley Road to Peterson Avenue (2004)
  Reconstruction project
- Highway 53 Freeway and Interchanges (2004-2007)
  Modification and relocation of local streets
- West Side Corridor (2005)
  Upgrade of north-south arterial between Bellinger Street North to Old Wells Road
- Transit Transfer Station (2006)
  Transfer station study, design, land acquisition, and construction
- Birch Street/US 53 Interchange (2007)
  Improvements to entrance ramps and frontage roads

Assessment of Transportation Policies

Many of the city's existing policies impact the transportation system. These various policies or goals and objectives are found in several municipal documents. The following summary provides an assessment of the impacts to the transportation system from these policies.

Zoning Ordinance

Overall the city's zoning regulations are compatible with the majority of the transportation components. The zoning ordinance allows densities and mixed- or multiple-use development if desired by the market.

Many of the industrial uses are located near the major highways (I-94, STH 124, US 53), as are the heavy concentrations of commercial uses and "big box" retail located around the I-94/US 53/STH 93 area. These uses are typically located with good highway access and serve the traffic volumes generated. The majority of the city is made up of residential use.

Parking Requirements

The City's Zoning Ordinance includes standards for the number of off-street parking spaces, and it typically requires more spaces than needed for commercial land uses, especially retail developments.

Street Standards

The City's Subdivision Ordinance contains specifications for street widths and roadway right-of-way. This information may also be found on the official map. Street widths are based on the type of street (road classification) and the function that the street serves. Also included in the Subdivision Ordinance, along with street width, are the right-of-way standards for defined type of streets. Street widths and right-of-way standards are presented below:

	Right-of-way	**Roadway Width**
Major Streets	80 feet	48 feet
Collector Streets	66 feet	36 feet
Minor Streets	60 feet	30 feet

*Source: *City of Eau Claire Subdivision Ordinance*

These current street standards are similar to those used by other municipalities for local streets. The city provides flexibility in these standards to allow different types of development to occur. This flexibility, in turn, provides citizens with a choice regarding the types of neighborhoods and environment they would like to live and work.

Access Management

At the current time, the City has no standards or policies related to access management or the spacing of driveways along roads. However, the City does utilize a site plan review process, and standards from the Planned Development Ordinance to guide future access permits. In addition, WisDOT maintains standards along state highways that traverse the city. These State standards are as follows:

Average Daily Traffic	**Minimum Spacing**
Under 2,000	500 feet for private access, 1,000 feet for public access
Between 2,000 and 5,000	1,000 feet for private access, 2,000 feet for public access

In addition to access spacing, WisDOT also enforces building setbacks along state trunk highways (STH). An administrative rule under the State of Wisconsin states that a property that abuts a STH must be 50 feet from the ROW or 110 feet from the centerline, whichever is greater. This rule, which the City considers excessive and inappropriate, applies to any improvements such as buildings, signs, septic improvements or other property enhancements.

Sidewalks

Under the current City policy, sidewalks are required on both sides of newly constructed local streets; however the final determination on whether or not sidewalks are constructed is determined by the City Council. Turnover in council members have led to the inconsistent use and enforcement of the City's existing policy and in turn, have created an irregular system of sidewalks along new streets.